
IN THE UNITED STATES PATENT AND
TRADEMARK OFFICE

Application Number: 09/879,480
Applicants: Jack C. Whittier, Barbi A. Riggs, Patrick D. Burns, George
Seidel
Filed: June 12, 2001
Title: Integrated Herd Management System Utilizing Isolated
Populations of X-Chromosome Bearing and Y-
Chromosome Bearing Spermatozoa
Confirmation No.: 6452
TC/A.U.: 1634
Examiner: Carla J. Myers
Assignee: Colorado State University through its agent Colorado State
University Research Foundation
Attorney Docket: HrdMgmtCIP
Customer No.: 33549

AFFIDAVIT UNDER 37 C.F.R. § 1.132

UNITED STATES OF AMERICA)
STATE OF COLORADO)ss.
COUNTY OF LARIMER)

I, John Schenk, duly sworn and under oath, declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

Since approximately 1981, I have been involved to varying degrees in the field of sexing spermatozoa and producing animal from such spermatozoa. This has included at least work with the Texas A&M University; Colorado State University; Ankony Shadow Isle;

ABS Global, Inc. In fact, I am currently employed by XY, Inc., the assignee of the above referenced patent application. I am also a co-inventor on several patents or patent applications in the field of sexing spermatozoa and producing animals from such spermatozoa, including at least: US Application 60/400,486 entitled "Sperm Cell Process Systems"; US Application 60/400,971 entitled "Low Pressure Sperm Separation System Using Heterospermic Insemination To Assess Sperm Function"; US Application 09/001,394, entitled "Sheath Fluids and Collection Systems for Sex-Specific Cytometer Sorting of Sperm"; US Application 09/015,454, entitled "System for Improving Yield of Sexed Embryo in Mammals"; US Application 09/448,643, entitled "Multiple Sexed Embryo Production System for Mammals"; US Application 09/478,299, entitled "Method of Cryopreserving Selected Sperm Cells"; US Application 09/582,809, entitled "Sex Specific Insemination of Mammals With Low Number of Sperm Cells"; US Application 10/081,955 entitled "Multiple Sexed Embryo Production System for Mammals Using Low Numbers of Spermatozoa"; International Application PCT/US03/24,460 entitled "Low Pressure Sperm Cell Separation System"; and International Application PCT/US00/30,146 entitled "Methods for Improving Sheath Fluids and Collection Systems for Sex-Specific Cytometer Sorting of Sperm". My duties as Reproductive Physiologist for XY, Inc. allow me to review various publications and efforts by others relevant to the field of sexing spermatozoa and producing animals from such spermatozoa and require that I have a certain level of technical expertise in these fields.

By virtue of my experience and expertise in the technology of the present invention and, I have knowledge and skill which is at least representative of those skilled in the art of sexing spermatozoa and producing animals from such spermatozoa as involved in the Application.


I am aware of the specification of the above-referenced application including the claims as currently amended, such claims are attached as Exhibit A to this affidavit. In connection with my review, I have focused upon and directed my comments to only claim 46 as now being amended in this Application, the "Subject Claim." It should be understood that my comments are directed to the Subject Claim only and do not apply to other claims about which I make no comment at this time. Further, I have reviewed certain comments of the examiner of the US Patent and Trademark Office, as set forth in the action mailed October 3, 2003 with respect to the application, such comments are attached as Exhibit B to this affidavit (the "Relevant Examination Comments").

Based upon knowledge and skill that is representative of those having ordinary skill in the relevant art, and after review of the Subject Claim and the Relevant Examination Comments, I am of the opinion that the invention as set forth in each of the Subject Claim is believed to be enabled such that after a reading of the teachings of the application and including those references incorporated by reference therein, a person of ordinary skill in the art should be able to make and use the invention without undue experimentation. Specifically, as to the Subject Claim, the concern was expressed in the Relevant

examination Comments that it might be unpredictable and unable to achieve varied purities and varied desired sexes of a number of offspring at the three alternative levels set forth in the Subject Claim, namely, substantially all female offspring selected from the group consisting of at least 70% female offspring, at least 80% female offspring, and at least 90% female offspring. The achievement of such success levels is enabled by the application and was, at the time the application was filed, fairly well known and achievable. The various patents and applications a papers published have made it known how to achieve these levels of purity with viable sperm. In fact it is now and was at the time the application was initially filed on June 12, 2000, known that one could achieve levels of substantially all female offspring selected from the group consisting of at least 70% female offspring, at least 80% female offspring, and at least 90% female offspring. While additional statements could be made, it may suffice to simply state that I believe the stated percentages of success were not unpredictable in stated non-human mammals, namely bovines, equids, ovines, porcines, and goats.

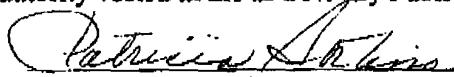
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATED this 5th day of April, 2004.


John Schenk

UNITED STATES OF AMERICA)
STATE OF COLORADO)ss.
COUNTY OF LARIMER)

SUBSCRIBED AND SWORN to before me in the County of Larimer, State of Colorado, United States of America, by John Schenk this 5th day of April, 2004. WITNESS my hand and official seal pursuant to the authority vested in me as a Notary Public by the State of Colorado.


Notary Public

My Commission Expires: March 11, 2006

